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Replacement Sheet

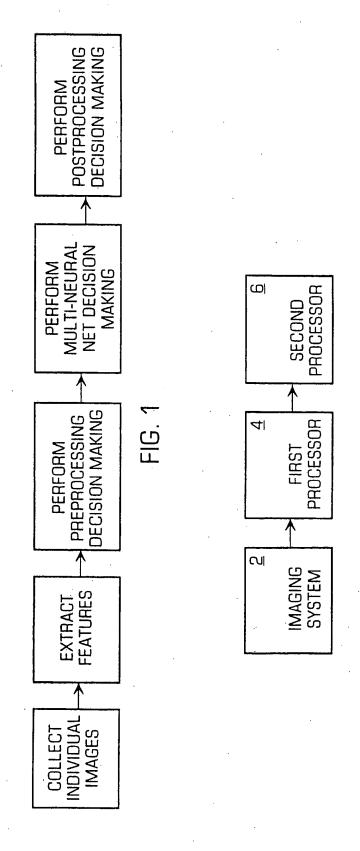
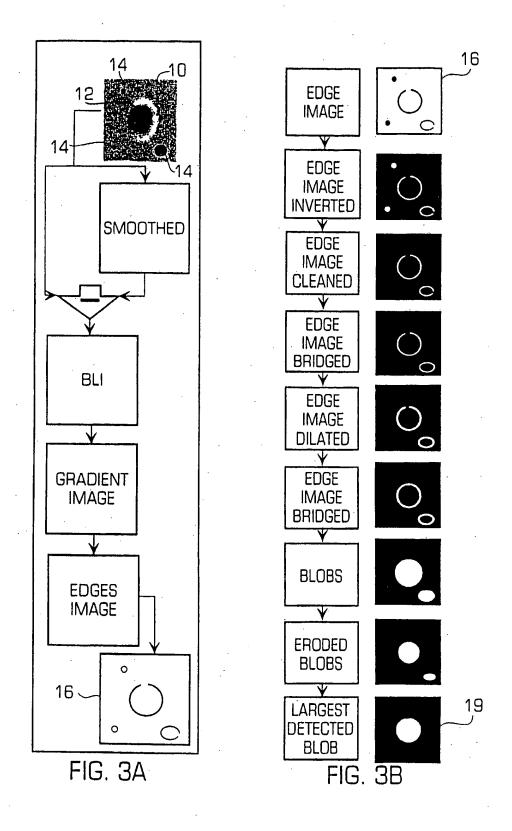


FIG. 2

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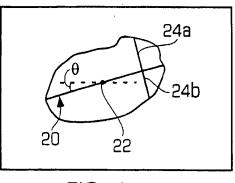


FIG. 4

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GET NEXT ANALYTE

DO NEURAL NET
CLASSIFICATION

ART BY
ABSTENTION
RULE?

Y
UNCC / HYAL / SQEP

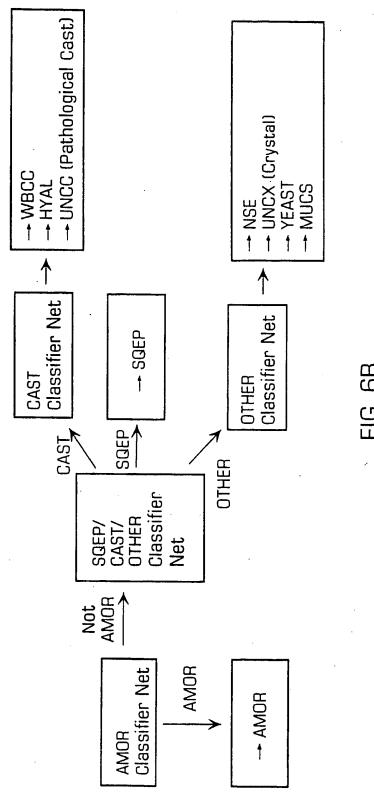
PARTIAL CAPTURE?

Y

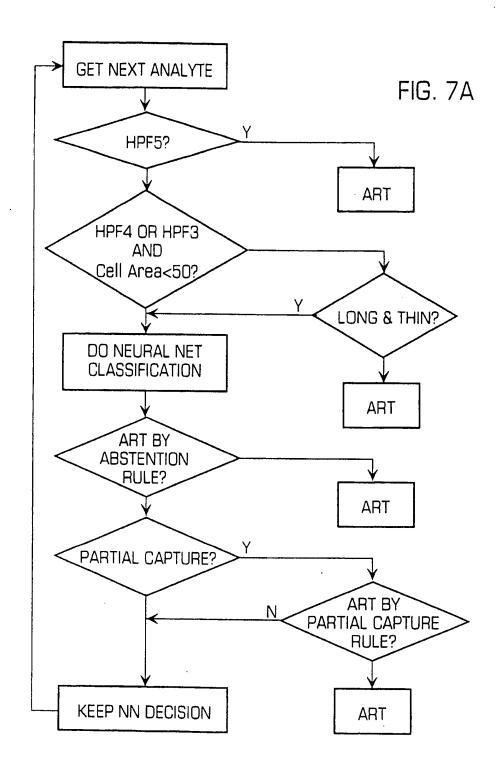
ART

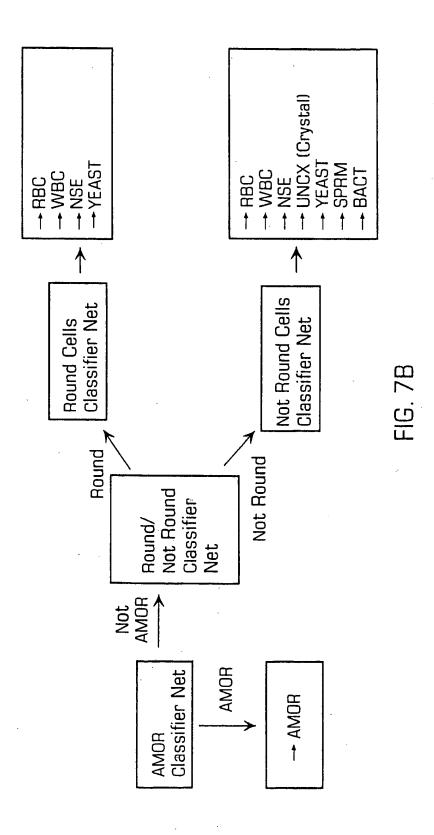
KEEP NN DECISION

FIG. 6A



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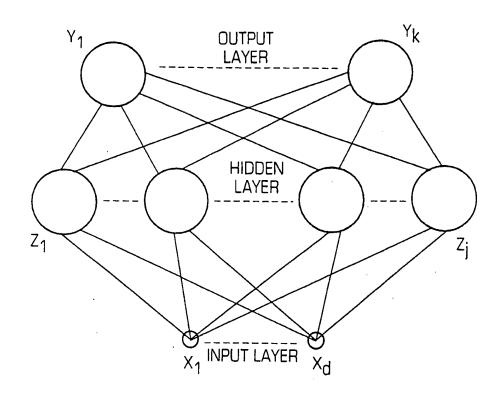


FIG. 8

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|  |    |   |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | ٠  | -  |    |    |    |    | į    |    | )<br>-<br>- |    |
|--|----|---|---|---|---|---|---|---|---|---|----|----|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|----|-------------|----|
| LPF OTHER4                                       |    |   | × | × |   |   |   |   |   |   |    |    |    |     |    |    |    |    | ×  | ×  | ×  | ×  |    | ×  |    |    | ×  |    |    | ×  |    |    |    |    |    | >  |    | ×    | ×  |             | ×  |
| LPF CAST3  | 11 |   |   |   |   |   |   |   |   |   |    | ×  |    |     |    |    |    |    |    | ×  | ×  |    |    | ×  |    |    | *  | ×  |    | ×  |    |    |    |    |    |    | ×  |      |    |             |    |
| LPF AMOR2   LPF CAST/SQEP/OTHER3                 | ×  | × | × | × | × | × | × |   |   |   |    |    |    |     |    | ×  |    | ×  |    |    | ×  | ×  |    | ×  |    |    | ×  |    |    | ×  |    |    |    |    |    |    |    |      |    |             |    |
| LPF AMOR2  | ,  | , | , | , |   |   | > |   |   |   | ×  |    | ×  |     | ×  |    |    | ×  |    | ×  | ×  | ×  | ×  | ×  |    |    |    |    |    | >  |    |    |    |    |    |    |    | >    | ×  |             |    |
| HPF NOT ROUND?                                   |    | > | ^ | × |   |   | × |   |   |   |    | ×  |    | ×   |    | ×  | >  |    | ×  | ×  | ×  | ×  |    | ×  |    |    |    |    |    | ×  |    |    |    |    |    | ×  | ×  | ×    |    |             | ×  |
| HPF ROUND4                                       |    | × |   |   |   |   |   |   |   |   |    | ×  |    | X   |    | ×  | ×  |    |    |    | -  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | ,    |    |             |    |
| PF ROUNDANOT ROUND   HPF ROUND4   HPF NOT ROUND7 | >  | × | × | × | × | × | × | × | × | × | ×  | ×  | ×  | , x | ×  | ×  | ×  | ×  | ×  | ×  | ×  | ×  | ×  | ×  | ×  |    | ×  | ×  |    | ×  | ×  |    | ×  | ×  |    | ×  | ×  | ×    | X  | ×           | ×  |
|  |    | × | × | Х | × |   | × |   |   |   |    |    |    |     |    |    |    |    |    | ×  |    | ×  | X  |    |    |    |    |    |    |    |    |    |    |    |    | ×  |    |      | ×  |             |    |
| FEATURE NO.   HPF AMOR2                          | 0  |   | 2 | Э | 4 | 5 | 9 | 7 | 8 | 6 | 10 | 11 | 12 | 13  | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 2B | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | . 37 | 38 | 39          | 40 |

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| C | ľ | _ |
|---|---|---|
| C | J |   |
|   |   |   |
| C | _ |   |
| Ē | ī |   |

|   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |      |    |    |    |     |    |     |    |    | L  | 1  | •  |    |
|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|----|----|----|-----|----|-----|----|----|----|----|----|----|
| LPF OTHER4  | X  | ×  |    |    | ×  |    |    |    |    |    |    |    |    |    |    |    | ×  | ×  |    |    | ×  |    |    |    | ×  |      | ×  |    |    |     |    |     |    | ×  |    |    |    | ×  |
| LPF CAST3   |    |    |    |    |    |    | ,  |    |    |    |    | ×  |    |    |    |    |    |    |    |    | ×  |    |    | ×  |    |      |    |    |    |     | ×  |     |    | ×  |    |    |    |    |
| FEATURE NO.   HPF AMORZ   PF ROUNDANDT ROUND HPF ROUND 4 HPF NOT ROUND 7   LPF AMORZ   LPF CAST/SOEP/OTHER3   LPF CAST/3   LPF OTHER4 |    |    |    | ×  |    |    | ×  |    |    |    | ×  |    |    | ×  |    |    |    |    |    |    |    |    |    |    |    |      |    |    |    |     | ×  |     |    |    |    |    |    |    |
| LPF AMOR2   |    |    |    |    |    |    |    | ×  |    |    |    |    |    |    |    | ×  |    |    |    | ×  |    |    |    | ×  | ×  |      |    | X  | ×  | ×   | ×  |     |    | ×  | ×  |    | ×  | ×  |
| HPF NOT ROUND?  | ×  |    |    | ×  |    |    | ×  |    | ×  |    |    |    |    | ×  | ×  | ×  |    | X  | ×  | ×  |    |    |    | χ. | ×  | X    | X  | X  | X  | X   | ×  | ×   |    | X  | ×  |    | ×  | ×  |
| HPF ROUND4  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | ×    |    |    |    |     |    |     |    |    |    | ×  |    |    |
| PF ROUND/NOT ROUND  | ×× | V  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |      |    |    |    |     |    |     |    | ,  |    |    |    |    |
| HPF AMOR2   |    |    |    |    | ×  |    | ×  | ×  | ×  |    |    |    |    | ×  | ×  | ×  | ×  | ×  | ×  | ×  |    |    |    |    | ×  | ×    |    | ×  |    | ×   | ×  |     |    | ×  | ×  |    |    |    |
| FEATURE NO.   | 41 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 20 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 09 | 61 | 62 | 63 | 64 | 65 | 99 | - 29 | 69 | 69 | 70 | 7.1 | 72 | 7.3 | 74 | 75 | 76 | 77 | 78 | 79 |

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|   |    |    | <u>,</u>    |    |    |    |    |        |        |    |          |    |      |          |          |    |     |      |    |    |     |     |     |     |     | ÷   |     |     |     |     |     |   |     |     |     | ,   |     | (   |     |     |         |
|---|----|----|-------------|----|----|----|----|--------|--------|----|----------|----|------|----------|----------|----|-----|------|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|-----|-----|-----|-----|-----|-----|-----|-----|---------|
| I PF OTHERA   |    | *  |             | ×  |    | >  |    |        |        | >  | <b>\</b> | ×  | <    | ^        | <<br>    |    | \ \ |      | ,  |    |     |     |     |     |     |     |     |     |     |     | ×   |   |     |     |     |     |     |     |     |     |         |
| LPF CAST3   |    | ×  | \<br>\<br>\ | ×  | ×  |    |    | >      | <<br>> |    |          |    |      | >        | <b>\</b> | ,  |     |      |    |    |     |     |     |     |     |     |     |     |     |     |     |   | ×   |     |     |     |     |     |     | ×   |         |
| PF ROUND/NOT ROUND   HPF ROUND4   HPF NOT ROUND7   ILPF AMOR2   LPF CAST/SOFP/01HFR3   LPF CAST/3   PF 07HFRA |    | >  | *           | *  | *  | ,  |    | ×      | ×      | ×  |          |    |      | *        | ××       | ,  | G   | ×    | ×  |    |     |     | ×   |     |     |     |     |     |     |     | ×   |   |     |     |     |     |     |     |     |     |         |
| TLPF AMOR2  |    | ×  | ×           |    |    | ×  |    |        |        | ×  |          | ×  |      | >        | ,        |    |     |      | ×  |    |     |     |     |     | ×   |     |     | ×   |     |     |     |   |     |     |     | -   |     |     |     |     | ×       |
| HPF NOT ROUND?  |    | ×  | ×           | ×  | ×  | ×  |    | \<br>\ | ×      | ×  | ×        | ×  |      | <b>×</b> | ×        | >  | ,   | ×    |    |    | ×   | ×   |     | ×   | ×   |     | ×   | ×   | ×   | ×   | ×   |   |     |     |     |     |     |     | ×   |     | ×       |
| HPF ROUND4  |    |    | ×           | ×  |    |    |    |        |        | ×  | ×        | -  |      | ×        | ×        | ×  |     |      |    |    |     |     |     |     |     |     |     |     |     |     |     |   |     |     |     |     |     |     |     |     |         |
| PF ROUND/NOT ROUND  |    |    | *           |    |    |    |    |        |        |    |          |    |      |          |          |    |     |      |    |    |     |     |     |     |     |     |     |     |     | ,   |     |   |     |     |     |     |     |     |     |     |         |
| HPF AMOR2   |    | ×  | ×           | ×  | ×  |    |    | ×      |        | ×  |          |    |      |          |          | ×  |     |      |    | ×  | ×   |     |     |     | ×   |     |     | ×   |     | ×   |     |   |     | ×   |     |     | ×   |     |     |     | -       |
| FEATURE NO.   HPF AMOR2   | 80 | 81 | 85          | 83 | 84 | 85 | 86 | 87     | 88     | 83 | 06       | 91 | . 26 | 93       | 94       | 95 | 98  | . 97 | 98 | 66 | 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 | • | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 _ I |

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|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------|-----|
|   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | (   |     | <u>)</u><br>- |     |
| LPF OTHERA  |     |     |     |     |     |     |     | ×   |     |     |     |     |     |     |     |     |     |     |     | 1   |     | ×   | ×   |     |     |     |     | ×   | ×   |     | ×   |     |     |     |     |     |     | ×   |               |     |
| LPF CAST3   |     |     |     |     | ×   |     | ×   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | ×   | ×   | ×   |     |     |     |     |     | ×   |     |     |     | ×   |               |     |
| PF ROUNDANOT ROUND HPF ROUNDA HPF NOT ROUND ?   LPF AMOR2   LPF CAST/SOEP/OTHERS   LPF CAST3   LPF OTHERA |     |     | ×   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | ×   |     |     |     |     | ×   |     |     |     | ×   |     | ×   | ×   |     |     |     |     | X   |               |     |
| LPF AMOR2   |     |     |     |     |     | ×   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |               |     |
| HPF NOT ROUNDY  |     |     |     | ×   |     |     |     |     | ×   | ×   | ×   | ×   |     |     |     | ×   |     | ×   |     |     | ×   | ×   | ×   | ×   | ×   |     |     | ×   | ×   | ×   | ×   | ×   | ×   |     | ×   |     | ×   |     | ×             | 1   |
| HPF ROUND4  |     |     |     |     |     |     |     |     |     | ×   |     |     |     |     |     |     |     |     |     |     |     |     |     |     | ×   |     |     |     |     |     | ×   |     |     |     |     |     | ×   |     |               |     |
| PF ROUND/NOT ROUND  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |               |     |
| FEATURE NO.   HPF AMOR2   |     |     |     |     |     | ×   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | ×   | ×   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |               |     |
| FEATURE NO.   | 121 | 122 | 123 | 124 | 125 | 126 | 127 | 128 | 129 | 130 | 131 | 132 | 133 | 134 | 135 | 136 | 137 | 138 | 139 | 140 | 141 | 142 | 143 | 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 | 154 | 155 | 156 | 157 | 158 | 159           | 160 |

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|  | _   | _      | 1   | _   | _   | _   | _   | _   | T        | _   | Т.  | Т.  | -   | _   | 7-  |             | _   | _      | _   | _           |     | _        | _   | _   | _      | _   |    |     | _   | _   |     |     | _   |     | -   | _   | _   |     | <b>-</b> |         |
|--|-----|--------|-----|-----|-----|-----|-----|-----|----------|-----|-----|-----|-----|-----|-----|-------------|-----|--------|-----|-------------|-----|----------|-----|-----|--------|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|---------|
| LPF OTHER4   |     |        |     |     |     |     |     |     | <b> </b> | ×   |     |     |     |     |     |             |     |        |     |             |     |          |     | i.  |        |     |    | ×   | ×   |     | ×   |     |     |     |     |     |     |     | 46       |         |
| LPF CAST3  |     |        |     |     |     |     |     | ×   |          |     |     |     |     |     |     | ,           | <   |        |     |             | ,   | <b>\</b> | ];  | ×   |        |     |    |     | ×   |     |     |     |     |     |     |     |     |     | 38       |         |
| FEATURE NO.   HPF AMORZ] PF ROUNDANOT ROUND   HPF ROUND4   HPF NOT ROUND7   LPF AMORZ   LPF CAST/SOEP/OTHER3   LPF CAST/3   LPF OTHER4 | >   | \<br>\ | ^   | Α   | ×   |     |     |     |          |     | ×   |     |     |     | ^   | <b>&gt;</b> | <   |        |     |             |     |          |     |     |        |     |    |     |     |     | ×   |     |     |     |     |     |     |     | 48       |         |
| LPF AMOR2  |     |        |     |     |     |     |     |     |          |     |     |     |     |     |     |             |     |        |     |             |     |          |     |     |        |     |    |     |     |     |     |     |     |     |     |     |     |     | 42       |         |
| HPF NOT ROUND7   | >   |        | ×   |     | ×   |     | ×   |     |          | ×   | ×   |     |     |     |     |             | >   | \<br>\ | >   | \<br>\<br>\ |     | <u> </u> | <   | ^   | \<br>\ |     |    |     |     |     |     |     |     |     | ×   |     |     |     | 100      | FIG. 9E |
| HPF ROUND4   |     |        |     |     |     |     |     |     |          |     |     |     |     |     |     |             |     |        |     |             |     |          |     |     |        |     |    |     |     |     |     |     |     |     |     |     |     |     | 18       |         |
| PF ROUND/NOT ROUND   |     |        |     |     |     |     |     |     |          |     |     |     |     |     |     |             |     |        |     |             |     |          |     |     |        |     |    |     |     |     |     |     |     |     |     |     |     |     | 39       |         |
| HPF AMOR2  |     |        | ×   |     |     |     |     |     |          |     |     |     |     |     |     |             |     |        |     |             |     | ×        |     | >   |        |     |    |     | ×   |     |     |     |     | -   | ×   |     |     |     | 20       |         |
| FEATURE NO.  | 161 | 162    | 163 | 164 | 165 | 166 | 167 | 168 | 169      | 170 | 171 | 172 | 173 | 174 | 175 | 176         | 177 | 178    | 179 | 180         | 181 | 182      | 183 | 187 | 2 2    | 193 | 98 | 18/ | 188 | 189 | 190 | 191 | 192 | 193 | 194 | 195 | 196 | 197 | TOTAL:   |         |

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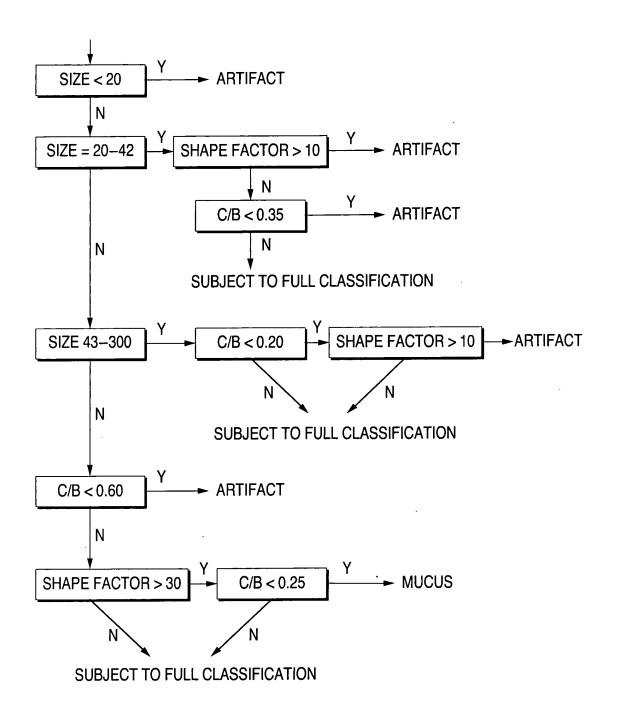


FIG. 10

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